

Claims

What is claimed is:

1. A system for automatic construction of a change plan, said system comprising:
 - an arrangement for submitting a request for change to the system;
 - 5 an arrangement for constructing a task graph specifying the order in which tasks execute in compliance with data and temporal dependency constraints; and
 - an arrangement for creating a change plan from the task graph.
2. The system of Claim 1, further comprising an arrangement for storing information about packages which may be installed on the system.
- 10 3. The system of Claim 2, further comprising an arrangement for storing information about current configuration of the system, including packages installed on the system.
4. The system of Claim 3, further comprising an arrangement for determining lifecycle transitions that are imposed on artifacts of the system by execution of the tasks.

5. The system of Claim 1, wherein the arrangement for creating a change plan includes an arrangement for determining lifecycle transitions that are imposed on artifacts of the system by execution of the tasks.

6. The system of Claim 1, further comprising an arrangement for analyzing the
5 change plan, whereby the impact of upon a service by a change plan may be determined.

7. The system of Claim 6, further comprising an arrangement which specifies artifacts and other services being used by the service being analyzed.

8. The system of Claim 6, further comprising an arrangement which specifies the impact on service level agreements as a result of executing the change plan.

10 9. The system of Claim 6, further comprising an arrangement which specifies the impact on installation policies as a result of executing the change plan.

10. A method for automatic construction of a change plan, said method comprising the steps of:

submitting a request for change to the system;

15 constructing a task graph specifying the order in which tasks execute in compliance with data and temporal dependency constraints; and

creating a change plan from the task graph.

11. The method of Claim 10, further comprising the step of storing information about packages which may be installed on the system.
12. The method of Claim 11, further comprising the step of storing information 5 about current configuration of the system, including the packages installed on the system.
13. The method of Claim 12, further comprising the step of determining lifecycle transitions that are imposed on artifacts of the system by execution of the tasks.
14. The method of Claim 10, wherein the step of creating a change plan includes determining lifecycle transitions that are imposed on artifacts of the system by execution 10 of the tasks.
15. The method of Claim 10, further comprising the step of analyzing the change plan, whereby the impact of upon a service by a change plan may be determined.
16. The method of Claim 15, further comprising the step of specifying artifacts and other services being used by the service being analyzed.
- 15 17. The method of Claim 15, further comprising the step of specifying the impact on service level agreements as a result of executing the change plan.

18. The method of Claim 15, further comprising the step of specifying the impact on installation policies as a result of executing the change plan.
19. A program storage device readable by machine, tangibly embodying a program of instructions executable by the machine to perform method steps for automatic construction of a change plan, said method comprising the steps of:
 - submitting a request for change to the system;
 - constructing a task graph specifying the order in which tasks execute in compliance with data and temporal dependency constraints; and
 - creating a change plan from the task graph.